

ICE AGE NATIONAL SCENIC TRAIL



A HANDBOOK for TRAIL DESIGN, CONSTRUCTION and MAINTENANCE

National Park Service • Wisconsin Department of Natural Resources • Ice Age Park and Trail Foundation



Ice Age National Scenic Trail Handbook

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ICE AGE NATIONAL SCENIC TRAIL

United States Department of the Interior • National Park Service



PREFACE

The Ice Age National Scenic Trail (NST) extends for more than 1,000 miles across the State of Wisconsin, winding through a myriad of ecosystems and political jurisdictions. Its design, construction, and maintenance is carried out by government agencies, volunteers from the Ice Age Park and Trail Foundation, and other private organizations in 31 counties. Understandably, the level of trail building experience and expectations have often differed among those involved. With the increasing popularity of the Ice Age NST, there is greater public expectation of a superlative hiking experience on this rare National Scenic Trail. To help meet these expectations, a more consistent application of standards in the development and maintenance of the Ice Age NST are needed across the state.

This handbook was created as a tool for both volunteers and professional staff to achieve more consistency in trail standards. Starting with the primary mission of the Ice Age Trail and the experience it provides to users, the handbook outlines guidelines for maintaining and creating the trail. It also provides a broad range of technical information, such as how to lay out and build the trail, types of trail structures and their required permitting processes, proper maintenance and inventory of existing trail, survey of important trail building tools, and much more.

Some of the direct benefits of following these standards are to:

- ▶ Provide front-line trail builders with additional technical information that will help them create outstanding segments of new trail, improve existing trail, and simplify long term management of the trail.
- ▶ Achieve greater user satisfaction by creating diverse hiking experiences, providing for basic levels of safety, and developing the trail for a higher degree of accessibility by all people.
- ▶ Achieve a “consistent look” for the Ice Age NST, which will create wider recognition by the general public as being part of a National Trails System and broaden its support.
- ▶ Provide a means to identify and evaluate funding needs to improve existing or to create additional segments of trail.

This handbook is not intended as a substitute for professional expertise provided by engineers and landscape architects. When designing complicated trail routes, trailheads or most importantly, weight bearing structures such as bridges, trail builders are encouraged to contact local experts or staff within the Wisconsin Department of Natural Resources or National Park Service to seek additional advice.

Over time, these standards should be implemented across the entire trail. As old segments of trail are reconstructed and as new trail segments are built, these guidelines should be followed. Local innovation is a trait that is encouraged, but ideas and variations should fall within the perimeters of these standards. As trail development and maintenance experience progresses, and changes in application are suggested, amendments will be incorporated and issued to those holding copies of this handbook.

It is hoped that this handbook will assist and inspire all who are working for the successful completion and maintenance of the Ice Age National Scenic Trail.



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INTRODUCTION

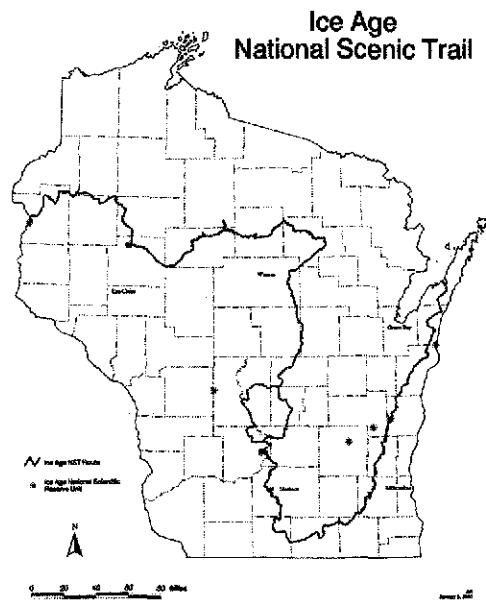
Continental glaciation was important in the formation and modification of physical surface features, including lakes, hills, and ridges in many areas of the Northern hemisphere. About a million years ago a tremendous ice sheet started forming in the Labrador and Hudson Bay Regions of Canada. There were four major ice advances and retreats—the Nebraskan, Kansan, Illinoian, and Wisconsinan stages of the Ice Age. The most recent episode of continental glaciation in North America, known as the Wisconsinan stage, ended 10,000 years ago. Wisconsin contains examples of many landforms that are world-renowned evidence of past glaciation. These include moraines, eskers, kames, kettles, drumlins, wetlands, and lakes.

Wisconsin's efforts to preserve its Ice Age features began in the 1950s. The late Raymond T. Zillmer, a Milwaukee attorney, first proposed establishing a National Park showcasing Wisconsin's glacial features. In 1958, he and others formed the Ice Age Park and Trail Foundation to work for the establishment of an "Ice Age Glacier National Forest Park." The result of this effort was the 1964 authorization by Congress of an Ice Age National Scientific Reserve. Each unit of the reserve protects nationally significant glacial features. There are nine units of the reserve: Two Creeks Buried Forest, Horicon Marsh, Kettle Moraine, Campbellsport Drumlins, Cross Plains, Devil's Lake, Mill Bluff, Chippewa Moraine, and Interstate.

The purpose of the Ice Age National Scenic Trail (NST), as a companion project to the Ice Age National Scientific Reserve, includes preserving some of the finest features of Wisconsin's glacial landscape, as well as other scenic and natural resources, while providing opportunities for low impact recreational and educational use. In addition, the trail connects six of the nine units of the Ice Age National Scientific Reserve, and many other federal, state, county, and local parks. The National Park Service (NPS), Wisconsin Department of Natural Resources (WDNR), private citizen volunteers of the Ice Age Park and Trail Foundation (IAPTF), counties, local governments, and other private organizations are working to help build and maintain the Ice Age NST.

In October 1980, Federal legislation authorized the establishment of the Ice Age NST as a component of the National Trails System (16 U.S.C. 1241 *et seq.*) It is one of only eight trails authorized by Congress to be designated a NST. Patterned after the renowned Appalachian Trail, NSTs are long-distance, non-motorized trails that follow major geographic features or pass through scenic areas.

In many ways, the Ice Age NST is similar in concept to the Appalachian NST. In other ways, it is uniquely different as it takes the visitor through a glacial landscape and promotes, through interpretation, better understanding of the characteristics and formation of this landscape. The Appalachian NST traverses many states and basically follows a mountain range, whereas the Ice Age NST showcases the glacial features of Wisconsin. When complete, the trail will extend over 1,200 miles from Interstate State Park on the St. Croix River in Polk County to Potowatomi State Park in Door County, tracing features left by the last continental glacier that swept over Wisconsin.





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The trail offers a plethora of experiences provided by the diversity of landscapes it traverses. The northern tier of the trail winds through large areas of public lands, such as county forests, state parks and wildlife areas, and a national forest, the Chequamegon, which offers near wilderness experiences. The southern half of the trail meanders through scenic rural farmland where it intermittently passes through quaint villages, towns and cities. These communities offer opportunities to meet local people, find lodging, and restock food and supplies.

The Ice Age National Scenic Trail exists as much for the enjoyment of the casual walker as it does for the long distance hiker. Whether used for an afternoon of walking, a day of cross-country skiing, or a week or month of backpacking, the glacial landscape it traverses offers much to explore. Adventure can be found along sparkling kettle ponds, impressive drumlin fields, pristine trout streams, old logging roads, a sun dappled oak savanna, breathtaking eskers, and a greenway through a local community.